

FIG. 1A

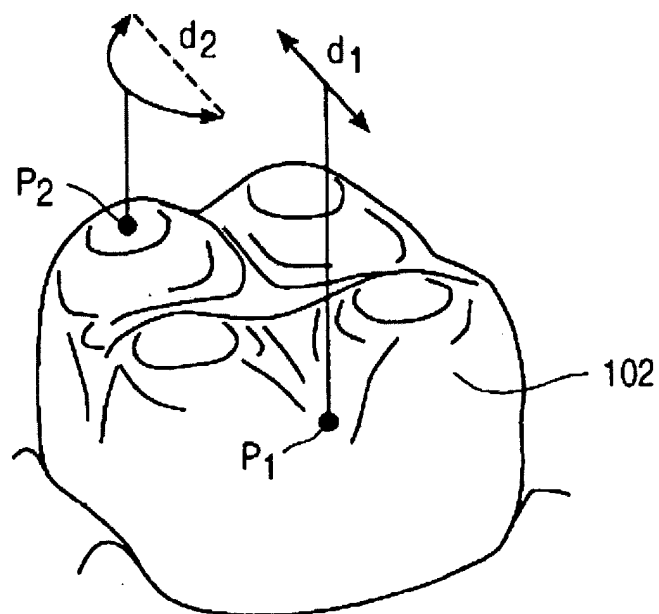


FIG. 1B

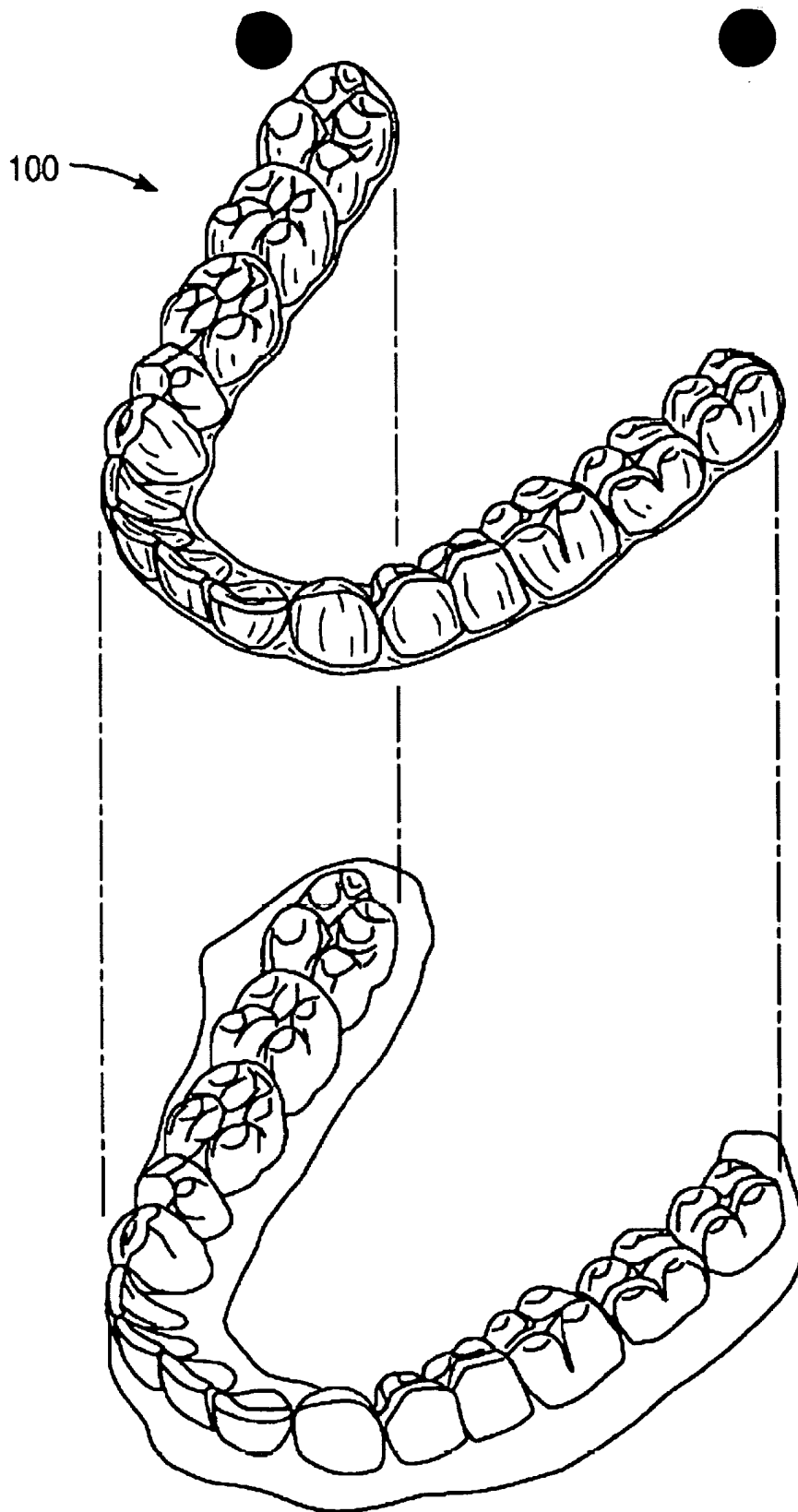


FIG. 1C

DIGITIZE INITIAL TOOTH
ARRANGEMENT TO PRODUCE
INITIAL DIGITAL DATA
SET (IDDS)

MANIPULATE IDDS TO
PRODUCE FINAL DIGITAL
DATA SET (FDDS)
CORRESPONDING TO A
DESIRED FINAL TOOTH
ARRANGEMENT

GENERATE MULTIPLE
INTERMEDIATE DIGITAL
DATA SETS (INTDDS's)
CORRESPONDING TO
SUCCESSIVE TOOTH
ARRANGEMENTS FROM
INITIAL TO FINAL

PRODUCE INCREMENTAL
POSITION ADJUSTMENT
APPLIANCES BASED ON
INTDDS's AND FDDS

CROSS-REFERENCE
FIG. 3

CROSS-REFERENCE
FIG. 6

FIG. 2

09641208-031800

09641203.031800

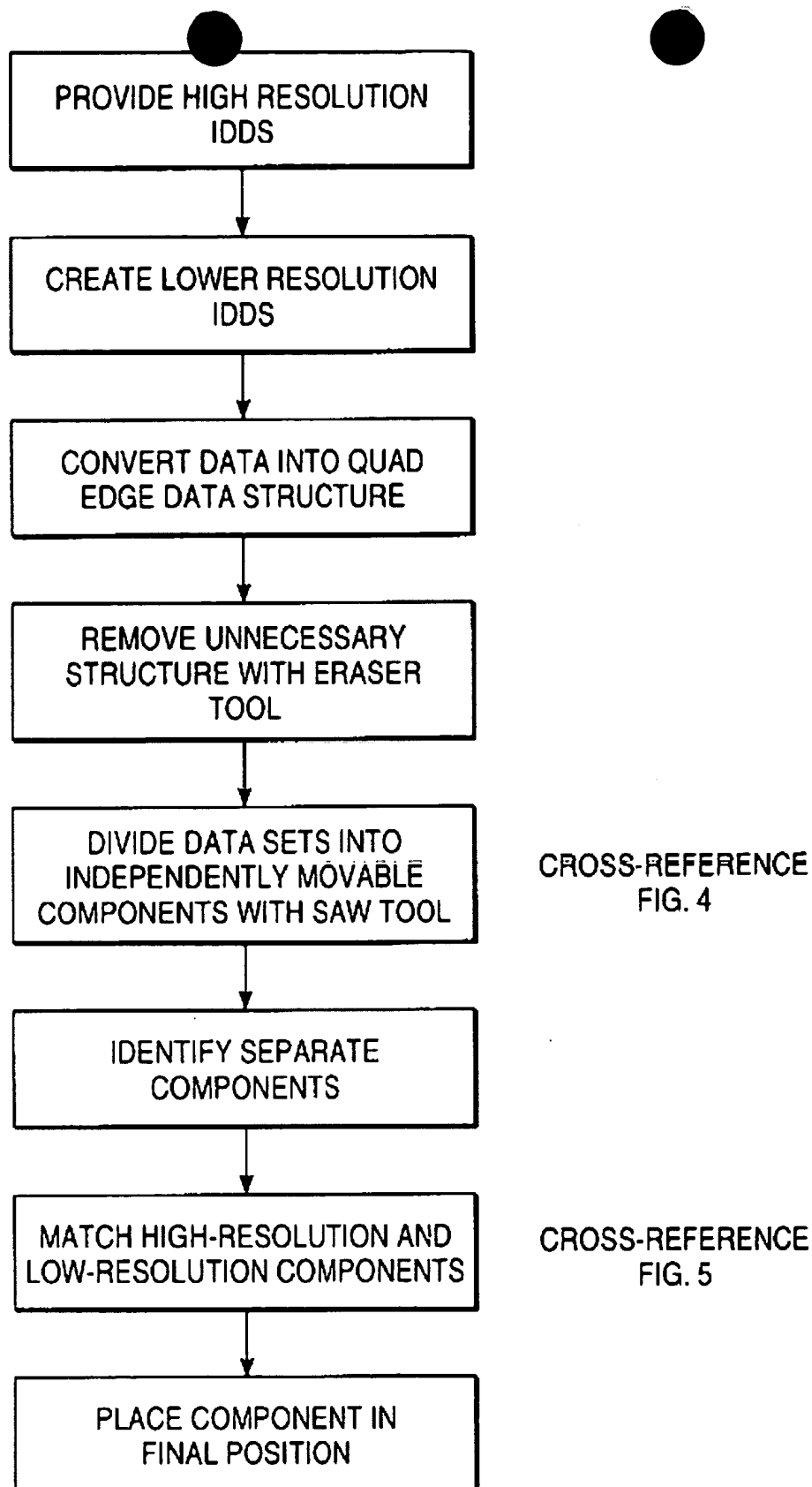


FIG. 3

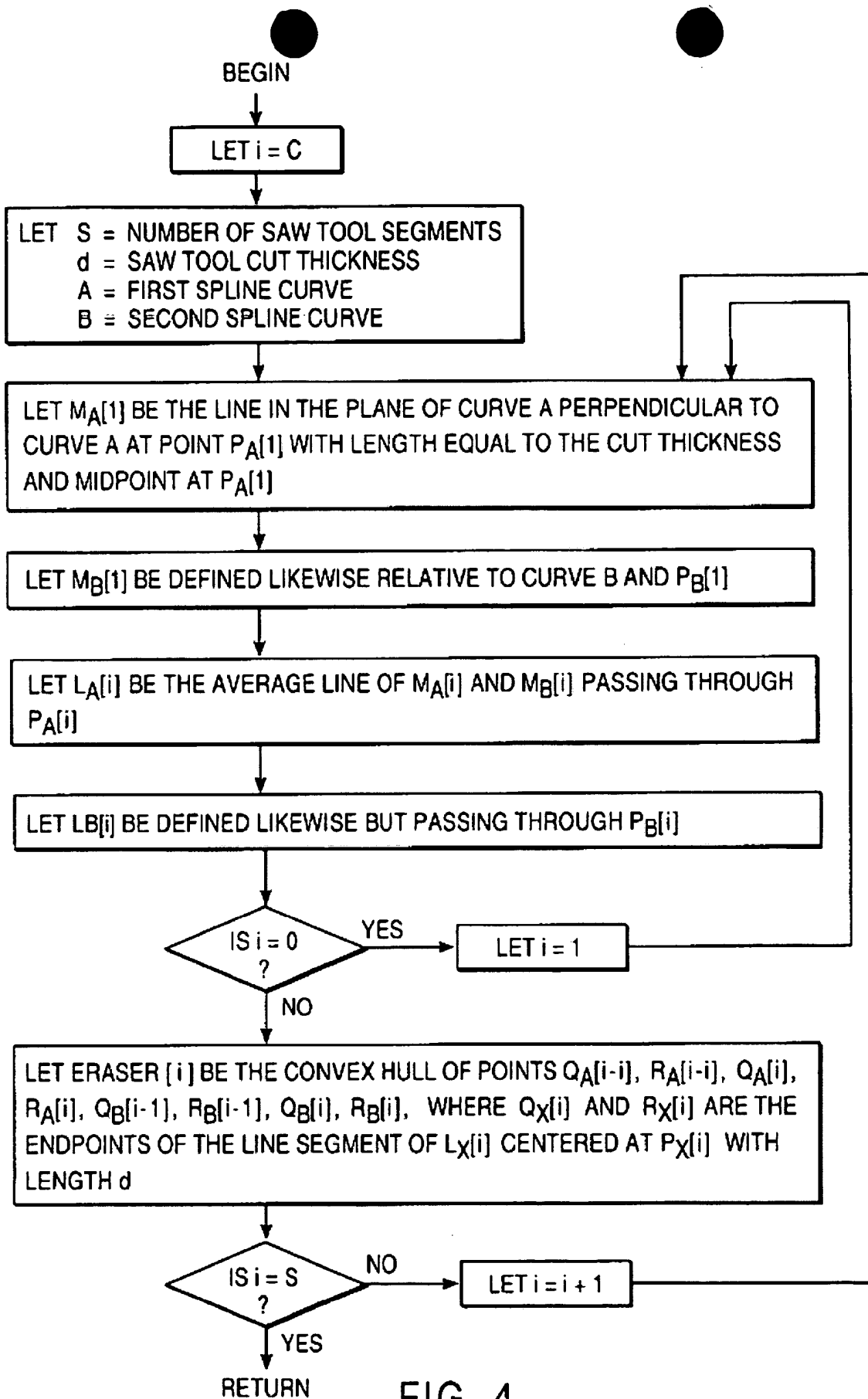


FIG. 4


```

graph TD
    A[FIND BOUNDING BOX FOR EACH HI-RES AND EACH LOW-RES COMPONENT] --> B[CHOOSE A HI-RES BOUNDING BOX]
    B --> C[CHOOSE A LOW-RES BOUNDING BOX]
    C --> D["SUM THE DISTANCE BETWEEN THE MINIMAL VERTICES OF THE LOW-RES, HIGH-RES BOXES AND THE DISTANCE BETWEEN THE MAXIMAL VERTICES OF THE LOW-RES, HI-RES BOXES"]
    D --> E{HAVE ALL LOW-RES BOXES BEEN CHOSEN FOR THIS HI-RES BOX?}
    E -- NO --> C
    E -- YES --> F[SELECT MINIMUM SUM]
    F --> G{IS SUM BELOW THRESHOLD?}
    G -- YES --> H["MATCH" LO-RES COMP THAT PRODUCED MINIMUM SUM TO CURRENT HI-RES COMP]
    G -- NO --> I["COPY CURRENT HI-RES COMPONENT INTO LO-RES SECTION/VECTOR AND 'MATCH' IT TO HI-RES COMPONENT FROM WHICH IT WAS JUST COPIED"]
    H --> J{ARE ALL HI-RES BOXES MATCHED?}
    I --> J
    J -- NO --> B
    J -- YES --> K[DISCARD (ERASE) ANY UNMATCHED LOW-RES COMPONENTS]
  
```

FIG. 5

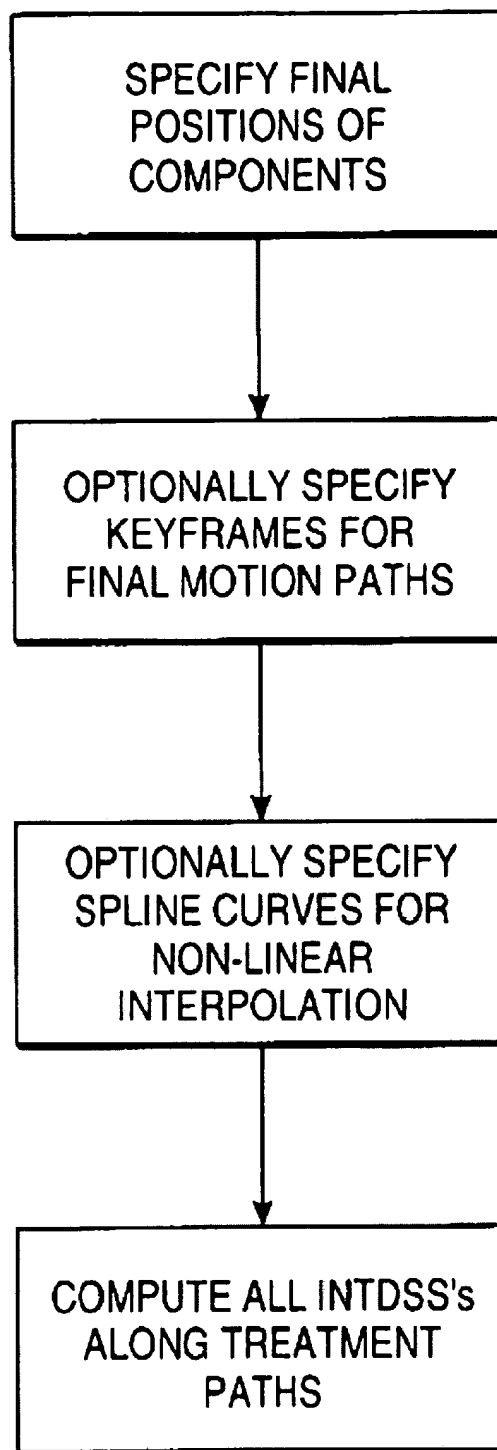


FIG. 6

09541208.081800

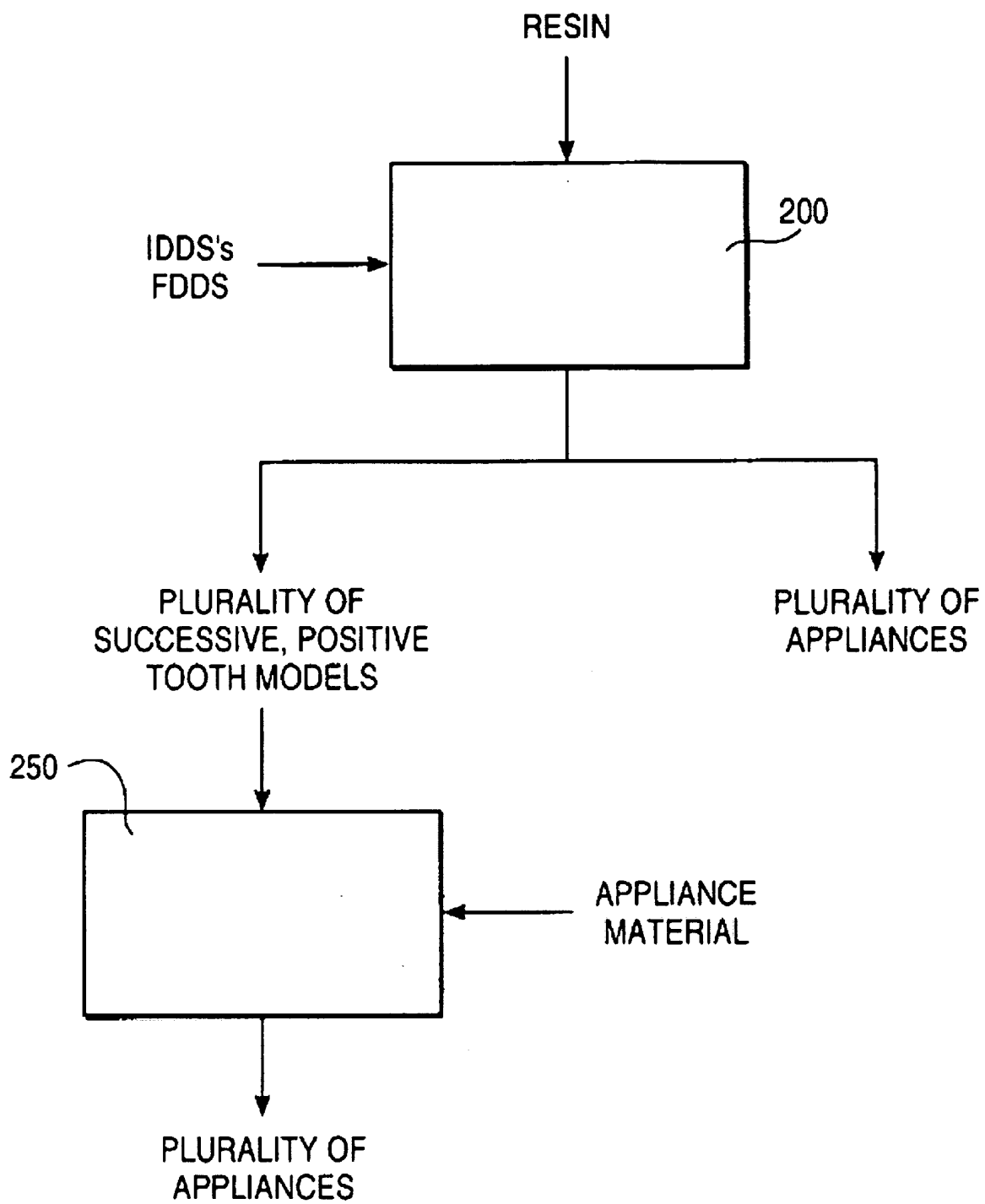


FIG. 7